

said maximum amount determination circuit calculates a relative difference between the first management value and the second management value and, based on the relative difference, varies the maximum data amount to be transmitted next.

3. The apparatus in accordance with claim 1, wherein said first management circuit adds up the average transmission amount value each time the data is transmitted to maintain the first management value, said second management circuit adding up the transmission amount of the data signal to maintain the second management value.

4. The apparatus in accordance with claim 3, further comprising a condition checking circuit checking a condition for an update of the first and second management values,

wherein said first and second management circuits update the first and second management values, respectively, according to the condition generated by said condition checking circuit.

5. The apparatus in accordance with claim 4, wherein said condition checking circuit resets the first and second management values to predetermined values, respectively, to maintain the relative difference between the first and second management values.

6. The apparatus in accordance with claim 5, wherein said first management circuit comprises a first register containing the first management value,

said second management circuit comprising a second register containing the second management value,

said first and second management circuits update the first and second management values, respectively, upon detection of a flag signal generated each time the data signal

$\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & i \\ 0 & 1 \end{pmatrix}$ $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & -i \\ 0 & 1 \end{pmatrix}$ $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$ $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$

7.

outputting to the receiver unit a transmission request to transmit the data signal to the receiver unit;

```

        generating a flag signal each time the data signal is
transmitted;

```

updating first management information representing a sum of a data transmission amount each time the flag signal is detected;

updating second management information representing a result of data transmission each time the flag signal is detected; and

based on the first and second management information,
calculating a maximum of the data signal to be transmitted
next,

in said step of outputting a transmission request, an amount of the data signal to be transmitted next being determined with the maximum as a threshold, the transmission request requesting to transmit the amount of the data signal being output to the receiver unit.

8. The method in accordance with claim 7, wherein in said step of calculating a maximum, the maximum is determined based on a relative difference between the first management information and the second management information.

9. The method in accordance with claim 7, wherein in

said step of updating first management information and said step of updating second management information, a first management value and a second management value are updated respectively based on a first setting value regulating a data transmission amount per transmission and on a second setting value regulating a maximum transmittable amount, and

in said step of calculating a maximum, a relative difference between the first management value and the second management value is calculated, and the transmission request is output according to the relative difference.